PV System Field Inspection Checklist

Array Installation and Wiring	
Proper insulation on module wiring (USE-2)	
Proper connectors on array wiring extensions	
Proper grounding of array & array mount	
Grounded conductors installed per 690.4(C)	
Array mount properly secured and sealed	
Suitable transition from open wiring to enclosed wiring	
Metallic conduit through attics to array disc	
DC Connections	
Source Circuit Combiner Boxes	
DC-rated circuit breakers or fuses with adequate voltage rating	
Listed equipment	
DC Component Enclosures	
Proper conductor sizes and insulation types	
Proper conductor terminations	
DC ratings on DC components	
Listed equipment	
SINGLE POINT GROUNDING!	
Optional grounding electrode conductor	
Charge Controllers (Battery backup systems only)	
Input and output disconnects labeled	
Listed charge controller	
Proper wire sizes (In #8 or #6, out #6 or #4)	
Grounded	
Inverters (DC side)	
Input and output disconnects labeled	
Listed	
Proper wire sizes (Usually 2/0, but sized to disconnect for battery backup. Smaller for straight grid-connect)	
Grounded	
Batteries (Battery backup systems only)	
Terminals protected from shorting	
Cables properly terminated (no set screw lugs on fine stranded wire)	
Maintenance-free vented for cooling	
Flooded vented to outside	
Labeled with proper safety procedures	
AC Connections	
Inverters	
Proper wire sizes (usually #6 for battery backup, smaller for straight GC)	

AC Component Enclosure	
Isolated Neutral busbar	
Listed components	
Labeled disconnects and C/B	
Standby Circuits (Battery backup only)	
Watch for multiwire if 120V	
Labeled	
Utility Disconnect (Not required by NEC, maybe by utility)	
Labeled per NEC690.56	
Visible, lockable, accessible, load break, external handle	
Point of Utility Connection	
Labeled per NEC690.56	
Complies with NEC690.64 (especially (B)(2))	
NEC690.64(B)(5) exempts bolt-on requirement	
Building Main Disconnect	
Labeled per NEC690.54	
Does the System Work? (Not required by NEC, but owners appreciate it)	
Observe currents, voltages and powers as displayed	